5.15 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan Update to result in transportation and traffic impacts in the City of Torrance. The analysis in this section is based in part on the following technical report(s):

- *City of Torrance General Plan Update Traffic Impact Analysis*, RBF Consulting, April 28. 2009
- *Citywide Traffic Analysis, City of Torrance*, RBF Consulting, June 3, 2008 (Available at the City of Torrance Community Development Department)

Complete copies of these studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices J)

5.15.1 Environmental Setting

Study Area

1. Amie Avenue/Torrance Boulevard (Area 4)
2. Anza Avenue/190th Street (Area 3)
3. Anza Avenue/Del Amo Boulevard (Area 3)
4. Anza Avenue/Spencer Street (Area 3)
5. Anza Avenue/Emerald Street (Area 3)
6. Anza Avenue/Torrance Boulevard (Area 6)
7. Anza Avenue/Carson Street (Area 6)
8. Anza Avenue/Sepulveda Boulevard (Area 6)
9. Anza Avenue/Lomita Boulevard (Area 9)
10. Anza Avenue/Calle Mayor (Area 9)
11. Anza Avenue/Pacific Coast Highway (SR-1) (Area 9)
12. Arlington Avenue/Carson Street (Area 5)
13. Arlington Avenue/Plaza Del Amo-Washington Avenue (Area 8)
14. Arlington Avenue/Sepulveda Boulevard (Area 8)
15. Arlington Avenue/235th Street (Area 8)
16. Cabrillo Avenue/Carson Street (Area 5)
17. Cabrillo Avenue/Sepulveda Boulevard (Area 8)
18. Cabrillo Avenue-Van Ness Avenue/Torrance Boulevard (Area 5)
19. Calle Mayor/Pacific Coast Highway (SR-1) (Area 9)
20. Crenshaw Boulevard/Redondo Beach Boulevard (Area 2)
21. Crenshaw Boulevard/Artesia Boulevard (Area 2)
22. Crenshaw Boulevard/182nd Street (Area 2)
23. Crenshaw Boulevard/190th Street (Area 4)
24. Crenshaw Boulevard/Del Amo Boulevard (Area 4)
25. Crenshaw Boulevard/Maricopa Street (Area 4)
26. Crenshaw Boulevard/Torrance Boulevard (Area 4)
27. Crenshaw Boulevard/Carson Street (Area 7)
28. Crenshaw Boulevard/Plaza Del Amo (Area 7)
29. Crenshaw Boulevard/Sepulveda Boulevard (Area 8)
30. Crenshaw Boulevard/235th Street (Area 8)
31. Crenshaw Boulevard/Lomita Boulevard (Area 8)
32. Crenshaw Boulevard/Skypark Drive-Amsler Street (Area 8)

33. Crenshaw Boulevard/Pacific Coast Highway (SR-1) (Area 10)
34. Crenshaw Boulevard/Rolling Hills Road (Area 10)
35. Del Amo Circle East/Carson Street (Area 7)
36. Del Amo Circle East/Sepulveda Boulevard (Area 7)
37. Denny Road-Robinson Avenue/Pacific Coast Highway (SR-1) (Area 10)
38. Hawthorne Boulevard (SR-107)/Redondo Beach Boulevard (Area 1)
39. Hawthorne Boulevard (SR-107)/Artesia Boulevard (Area 1)
40. Hawthorne Boulevard (SR-107)/182nd Street (Area 1)
41. Hawthorne Boulevard (SR-107)/190th Street (Area 3)
42. Hawthorne Boulevard (SR-107)/Del Amo Boulevard (Area 3)
43. Hawthorne Boulevard (SR-107)/Spencer Street (Area 3)
44. Hawthorne Boulevard (SR-107)/Emerald Street (Area 3)
45. Hawthorne Boulevard (SR-107)/Torrance Boulevard (Area 6)
46. Hawthorne Boulevard (SR-107)/Village Lane-Fashion Way (Area 6)
47. Hawthorne Boulevard (SR-107)/Del Amo Circle-Del Amo Circle North(Area 6)
48. Hawthorne Boulevard (SR-107)/Carson Street (Area 6)
49. Hawthorne Boulevard (SR-107)/Sepulveda Boulevard (Area 6)
50. Hawthorne Boulevard (SR-107)/Lomita Boulevard (Area 9)
51. Hawthorne Boulevard (SR-107)/Skypark Drive (Area 9)
52. Hawthorne Boulevard (SR-107)/Pacific Coast Highway (SR-1) (Area 9)
53. Hawthorne Boulevard (SR-107)/Newton Street (Area 10)
54. Hawthorne Boulevard (SR-107)/Rolling Hills Road (Area 10)
55. Henrietta Street/Del Amo Boulevard (Area 3)
56. Henrietta Street/Torrance Boulevard (Area 6)
57. Madison Street/Skypark Drive (Area 10)
58. Madison Street/Pacific Coast Highway (SR-1) (Area 10)
59. Madrona Avenue/Spencer Street (Area 4)
60. Madrona Avenue/Emerald Street (Area 4)
61. Madrona Avenue/Torrance Boulevard (Area 4)
62. Madrona Avenue/Fashion Way (Area 7)
63. Madrona Avenue/Carson Street (Area 7)
64. Madrona Avenue/Plaza Del Amo (Area 7)
65. Madrona Avenue/Sepulveda Boulevard (Area 7)
66. Maple Avenue/Maricopa Street (Area 4)
67. Maple Avenue/Torrance Boulevard (Area 4)
68. Maple Avenue/Carson Street (Area 7)
69. Maple Avenue/Plaza Del Amo (Area 7)
70. Maple Avenue/Sepulveda Boulevard (Area 7)
71. Ocean Avenue/Sepulveda Boulevard (Area 6)
72. Ocean Avenue/Lomita Boulevard (Area 9)
73. Palos Verdes Boulevard/Torrance Boulevard (Area 6)
74. Palos Verdes Boulevard/Sepulveda Boulevard (Area 6)
75. Palos Verdes Boulevard/Pacific Coast Highway (SR-1) (Area 9)
76. Palos Verdes Boulevard/Calle Mayor (Area 9)
77. Plaza Del Amo/Carson Street (Area 5)
78. Prairie Avenue/Redondo Beach Boulevard (Area 1)
79. Prairie Avenue/Artesia Boulevard (Area 1)
80. Prairie Avenue/182nd Street (Area 1)
81. Prairie Avenue/190th Street (Area 4)
82. Prairie Avenue/Del Amo Boulevard (Area 4)

83. Van Ness Avenue/Redondo Beach Boulevard (Area 2)
84. Van Ness Avenue/Artesia Boulevard (Area 2)
85. Van Ness Avenue/182nd Street (Area 2)
86. Van Ness Avenue/190th Street (Area 5)
87. Van Ness Avenue/Del Amo Boulevard (Area 5)
88. Victor Street/Del Amo Boulevard (Area 3)
89. Victor Street/Torrance Boulevard (Area 6)
90. Western Avenue (SR-213)/Artesia Boulevard (Area 2)
91. Western Avenue (SR-213)/182nd Street (Area 2)
92. Western Avenue (SR-213)/190th Street (Area 2)
93. Western Avenue (SR-213)/Del Amo Boulevard (Area 5)
94. Western Avenue (SR-213)/Torrance Boulevard (Area 5)
95. Western Avenue (SR-213)/Carson Street (Area 5)
96. Western Avenue (SR-213)/223rd Street (Area 8)
97. Western Avenue (SR-213)/Sepulveda Boulevard (Area 8)
98. Yukon Avenue/Redondo Beach Boulevard (Area 1)
99. Yukon Avenue/Artesia Boulevard (Area 1)
100. Yukon Avenue/182nd Street (Area 1)

Methodology

The City of Torrance requires significant impacts to be determined based on the *HCM* analysis; the *ICU* analysis is provided for informational purposes only, and is available in the appendix.

To determine whether the addition of project-generated trips at a study intersection results in a significant impact, the City of Torrance has established the following thresholds of significance:

- A significant project-related impact occurs at a study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection to change from acceptable operation (LOS A, B, C, or D) to deficient operation (LOS E or F) based on the *HCM* methodology; or

- A significant impact occurs at a study intersection if the addition of project generated trips increases the delay at an intersection already operating at a deficient LOS (LOS E or F) based on the *HCM* methodology.

HCM Intersection Analysis

The *2000 HCM* analysis methodology describes the operation of an intersection using a range of LOS, from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle, based on Table 5-15.1. Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections.

Table 5-15.1
HCM LOS & Delay Ranges for Signalized Intersections

LOS	Delay (seconds/vehicle)
A	≤10.0
B	>10.0≤20.0
C	>20.0≤35.0
D	>35.0≤55.0
E	>55.0≤80.0
F	>80.0

Source: Highway Capacity Manual, 2000

Performance Criteria

The City of Torrance target for peak hour intersection operation is LOS D or better.

Existing Roadway Network

The local roadway system is composed of freeways, principal arterials, major arterials, minor arterials, collectors, and Local Streets. Each roadway group serves a different purpose by carrying local or regional traffic and thus, speed limits and parking requirements vary accordingly.

Freeways

Freeways are limited-access, high-speed, divided roads included in the state and federal highway systems. Their purpose is to carry regional through-traffic (traffic passing through Torrance without stopping). Access to the regional highway system for Torrance residents and visitors is provided at interchanges. The design, construction, and operation of freeways are under the jurisdiction of the California Department of Transportation (Caltrans). The San Diego Freeway (Interstate 405) is the only interstate freeway in the City of Torrance, with five local freeway exits: Hawthorne Boulevard, Redondo Beach Boulevard, Artesia Boulevard, Crenshaw Boulevard, and Western Avenue. Although Interstate 110 does not pass directly through the City, the freeway provides indirect access to Torrance via eight exits: Artesia Boulevard, Torrance Boulevard (via Hamilton Avenue), Carson Street, 223rd Street, Sepulveda Boulevard, and Pacific Coast Highway.

Roadway System

The characteristics of the study roadway system in the City of Torrance are described below:

182nd Street is a four-lane undivided roadway trending in an east-west direction. 182nd Street is identified in the City of Torrance General Plan as a Minor Arterial. Between I-405 Northbound Ramps and Van Ness Avenue, 182nd Street is a four-lane divided roadway with a continuous left-turn lane. 182nd Street transitions to a two-lane undivided roadway west of Hawthorne Boulevard (SR-107). On-street parking is permitted on segments of 182nd Street.

190th Street varies from a four-lane undivided roadway to a five-lane divided roadway with a continuous left-turn lane trending in an east-west direction. 190th Street is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is prohibited on 190th Street east of Hawthorne Boulevard (SR-107). On-street parking is permitted on the north side of 190th Street west of Hawthorne Boulevard (SR-107).

223rd Street is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. 223rd Street is identified in the City of Torrance General Plan as a Minor Arterial. On-street parking is prohibited on 223rd Street west of Western Avenue (SR-213) and permitted on 223rd Street east of Western Avenue (SR-213).

Amie Avenue is a two-lane undivided discontinuous roadway trending in a north-south direction. Amie Avenue is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Amie Avenue south of Torrance Boulevard. On-street parking is permitted on Amie Avenue north of Torrance Avenue. Amie Avenue terminates on the north at Redondo Beach Boulevard.

Anza Avenue is a four-lane divided roadway with a continuous left-turn lane trending in a north-south direction. Anza Avenue is identified in the City of Torrance General Plan as a Minor Arterial. On-street parking is prohibited on Anza Avenue. Anza Avenue transitions to a four-lane divided roadway with a raised median south of Sepulveda Boulevard; on-street parking is permitted. Anza Avenue terminates on the south at Pacific Coast Highway (SR-1) and on the north at 190th Street.

Arlington Avenue is a two-lane divided roadway with a continuous left-turn lane trending in a north-south direction. Arlington Avenue is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Arlington Avenue. Arlington Avenue terminates on the north at 190th Street, where it changes name to Van Ness Avenue, and on the south at El Dorado Street.

Artesia Boulevard varies from a four- to six-lane divided roadway with a raised median trending in an east-west direction. Artesia Boulevard is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is prohibited on Artesia Boulevard. Artesia Boulevard terminates on the west at Pacific Coast Highway (SR-1) and on the east at Interstate 60 in Riverside, California.

Cabrillo Avenue is a two-lane divided roadway with a continuous left-turn lane trending in a north-south direction. Cabrillo Avenue is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Cabrillo Avenue. Cabrillo Avenue terminates on the north at Torrance Boulevard and on the south at 238th Street.

Calle Mayor is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Calle Mayor is identified in the City of Torrance General Plan as a Collector south of Pacific Coast Highway (SR-1) and a Minor Arterial north of Pacific Coast Highway (SR-1). Calle Mayor terminates on the east at Camino De Encanto and on the west at Palos Verdes Boulevard. On-street parking is permitted on Calle Mayor.

Carson Street is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Carson Street is identified in the City of Torrance General Plan as a Minor Arterial west of Hawthorne Boulevard (SR-107) and a Major Arterial east of Hawthorne Boulevard (SR-107). The Del Amo Fashion Center spans Carson Street between Hawthorne Boulevard (SR-107) and Del Amo Circle. Carson Street transitions to a six-lane roadway with a painted median east of the Del Amo Fashion Center. On-street parking is prohibited on Carson Street.

Crenshaw Boulevard varies from a four- to six-lane divided roadway with a continuous left-turn lane to a six-lane divided roadway with a raised median trending in a north-south direction. Crenshaw Boulevard is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is prohibited on Crenshaw Boulevard. On-street parking is permitted on 190th Street.

Del Amo Boulevard is a four-lane divided discontinuous roadway with a raised median trending in an east-west direction. Del Amo Boulevard is identified in the City of Torrance General Plan as a Major Arterial. Del Amo Boulevard transitions to a four-lane undivided roadway west of Madrona and transitions to a four-lane roadway with a continuous left-turn lane west of Hawthorne Boulevard (SR-107). On-street parking is prohibited on Del Amo Boulevard west of Hawthorne Boulevard (SR-107) and east of Madrona Avenue.

Del Amo Circle East is a four-lane divided private roadway with a continuous left-turn lane trending in a north-south direction. Del Amo Circle East is identified in the City of Torrance General Plan as a Collector. Del Amo Circle East terminates on the south at Sepulveda Boulevard. Del Amo Circle East provides access to parking for the Del Amo Fashion Center. On-street parking is prohibited on Del Amo Circle East.

Del Amo Circle West is a four-lane divided private roadway with a continuous left-turn lane trending in a north-south direction. Del Amo Circle West is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Del Amo Circle West.

Emerald Street is a two-lane undivided roadway trending in an east-west direction. Emerald Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Emerald Street, and identified in the City of Torrance General Plan as a Collector. Emerald Street terminates on the west at Henrietta Street and on the east at Madrona Avenue.

Fashion Way is a four-lane undivided private roadway trending in an east-west direction. Fashion Way is identified in the City of Torrance General Plan as a Collector. Fashion Way provides access to the Del Amo Fashion Center. On-street parking is prohibited on Fashion Way.

Hawthorne Boulevard (SR-107) is an eight-lane divided roadway with a raised median trending in a north-south direction. Hawthorne Boulevard (SR-107) is identified in the City of Torrance General Plan as a Principal Arterial. On-street parking is prohibited on Hawthorne Boulevard (SR-107). Hawthorne Boulevard (SR-107) provides access to the Del Amo Fashion Center and residential areas from Interstate 405. On-street parking is permitted south of Skypark Drive.

Henrietta Street is a two-lane undivided roadway trending in a north-south direction. Henrietta Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Henrietta Street. Henrietta Street terminates on the north at Del Amo Boulevard and on the south at Torrance Boulevard.

Lomita Boulevard is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Lomita Boulevard is identified in the City of Torrance General Plan as a Minor Arterial west of Hawthorne Boulevard (SR-107) and a Major Arterial east of Hawthorne Boulevard (SR-107). On-street parking is prohibited on Lomita Boulevard. On-street parking is permitted on Lomita Boulevard east of Crenshaw Boulevard. Lomita Boulevard terminates on the west at Anza Avenue.

Madison Street is a two-lane undivided roadway trending in a north-south direction. Madison Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Madison Avenue. Madison Street terminates on the north at Sepulveda Boulevard and on the south at Lomita Boulevard.

Madrona Avenue is a six-lane divided roadway with a raised median trending in a north-south direction. Madrona Avenue is identified in the City of Torrance General Plan as a Major Arterial. Madrona Avenue transitions to a four-lane divided roadway with a raised median south of Carson Street. On-street parking is

prohibited on Madrona Avenue. Madrona Avenue terminates on the north at Del Amo Boulevard where it changes name to Prairie Avenue.

Maple Avenue is a four-lane divided roadway with a continuous left-turn lane trending in a north-south direction. Maple Avenue is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Maple Avenue. Maple Avenue is a two-lane divided roadway with a continuous left-turn lane south of Carson Avenue, and a two-lane undivided roadway north of Carson Street. Maple Avenue transitions to a three-lane undivided roadway north of Torrance Avenue.

Maricopa Street is a four-lane undivided discontinuous roadway trending in an east-west direction. Maricopa Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on the south side of the Maricopa Street west of Hawthorne Boulevard (SR-107). Maricopa Street transitions to a two-lane undivided roadway east of Hawthorne Boulevard (SR-107). On-street parking is permitted on Maricopa Street east of Hawthorne Boulevard (SR-107).

Newton Street is a two-lane undivided roadway trending in an east-west direction. Newton Street is identified in the City of Torrance General Plan as a Collector. Newton Street terminates on the west at Calle Mayor and on the east at Pacific Coast Highway (SR-1). On-street parking is permitted on Newton Street.

Pacific Coast Highway (SR-1) is a six-lane divided roadway trending in an east-west direction. Pacific Coast Highway (SR-1) is identified in the City of Torrance General Plan as a Major Arterial. Pacific Coast Highway (SR-1) transitions from a six-lane divided roadway with a continuous left-turn lane to a six-lane roadway divided with a raised median between Crenshaw Boulevard and Hawthorne Boulevard (SR-107). On-street parking is prohibited on Pacific Coast Highway (SR-1).

Palos Verdes Boulevard is a four-lane divided roadway with a raised median trending in a north-south direction. Palos Verdes Boulevard is identified in the City of Torrance General Plan as a Minor Arterial. Palos Verdes Boulevard transitions to a four-lane divided roadway with a continuous left-turn lane south of Pacific Coast Highway (SR-1). On-street parking is prohibited on Palos Verdes Boulevard. Palos Verdes Boulevard terminates on the north at Torrance Boulevard and on the south at Palos Verdes Boulevard N/Palos Verdes Boulevard W.

Plaza Del Amo is a two-lane undivided roadway trending in an east-west direction. Plaza Del Amo is identified in the City of Torrance General Plan as a Minor Arterial. Plaza Del Amo transitions to a four-lane divided roadway with a continuous left-turn lane west of Del Amo Circle East. Parking is prohibited on Del Amo Circle East. On-street parking is prohibited on Plaza Del Amo. Plaza Del Amo is blocked off west of Western Avenue (SR-213) prohibiting through traffic.

Prairie Avenue varies from a four-lane divided roadway with a continuous left-turn lane and a raised median to a six-lane divided roadway with a raised median trending in a north-south direction. Prairie Avenue is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is permitted on the east side of Prairie Avenue north of 182nd Street. Prairie Avenue terminates on the south at Del Amo Boulevard where it changes name to Madrona Avenue.

Redondo Beach Boulevard is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Redondo Beach Boulevard is identified in the City of Torrance General Plan as a Major Arterial. Redondo Beach Boulevard transitions to a four-lane undivided roadway west of Hawthorne Boulevard (SR-107) and terminates on the west at Artesia Boulevard. On-street parking is permitted on the north side of Redondo Beach Boulevard west of Van Ness Avenue.

Rolling Hills Road is a four-lane divided roadway with a raised median trending in an east-west direction and transitions to a four-lane divided roadway trending in a north-south direction east of Crenshaw Boulevard. Rolling Hills Road is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Rolling Hills Road. Rolling Hills Road terminates on the west at Hawthorne Boulevard (SR-107) and on the south at Palos Verdes Drive North.

Sepulveda Boulevard is a six-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Sepulveda Boulevard is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is prohibited on Sepulveda Boulevard. Sepulveda Boulevard terminates on the west at Palos Verdes Boulevard.

Skypark Drive is a four-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Skypark Drive is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Skypark Drive.

Spencer Street is a two-lane undivided roadway trending in an east-west direction. Spencer Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on the south side of Spencer Street. Spencer Street terminates on the west at Henrietta Street and on the east at Madrona Avenue.

Torrance Boulevard is a six-lane divided roadway with a continuous left-turn lane trending in an east-west direction. Torrance Boulevard is identified in the City of Torrance General Plan as a Major Arterial. On-street parking is prohibited on Torrance Boulevard east of Anza Avenue and west of Henrietta Street. Torrance Boulevard transitions to a four-lane divided roadway with a painted median east of Prairie Avenue. On-street parking is prohibited on Torrance Boulevard east of Prairie Avenue.

Van Ness Avenue is a four-lane undivided roadway trending in a north-south direction. Van Ness Avenue is identified in the City of Torrance General Plan as a Minor Arterial. On-street parking is permitted on Van Ness Avenue. Van Ness terminates on the south at Torrance Boulevard.

Victor Street is a two-lane undivided roadway trending in a north-south direction. Victor Street is identified in the City of Torrance General Plan as a Collector. On-street parking is permitted on Victor Street. Victor Street terminates on the north at Del Amo Boulevard and on the south at Torrance Boulevard.

Western Avenue (SR-213) is a four-lane divided roadway with a continuous left-turn lane trending in a north-south direction. Western Avenue (SR-213) is identified in the City of Torrance General Plan as a Major Arterial. Western Avenue (SR-213) transitions to a six-lane divided roadway with a continuous left-turn lane between 182nd Street and 190th Street; on-street parking is prohibited. Western Avenue (SR-213) transitions to a five-lane divided roadway with a raised median between Del Amo Boulevard and Carson Street; on-street parking is permitted on the east side of Western Avenue (SR-213) between Del Amo Boulevard and Carson Street. Western Avenue (SR-213) transitions to a four-lane divided roadway with a raised median south of Carson Street; on-street parking is permitted.

Yukon Avenue is a two-lane undivided roadway trending in a north-south direction. Yukon Avenue is identified in the City of Torrance General Plan as a Collector. On-street parking is prohibited on Yukon Avenue. Yukon Avenue terminates on the north at Redondo Beach Boulevard and on the south at 190th Street.

Public Transportation

Torrance Transit System

The Torrance Transit System provides a general purpose fixed-route bus system as well as demand-responsive services for seniors and the disabled. The fixed-route service area includes all of Torrance, with routes going into Los Angeles via Gardena and Hawthorne, one route going into downtown Long Beach, and another serving the Metro Blue Line station in Compton. Torrance Transit also serves Union Station in downtown Los Angeles.

Torrance Transit has operated weekday service on fixed-routes continuously since 1940. Torrance Transit bus service has stops at major destinations throughout the City, including Del Amo Fashion Center, Torrance Civic Center, Madrona Marsh Preserve, and Downtown Torrance. Three of the routes (Routes 5, 7, and 9) provide service within the City. Five routes provide regional connections to Los Angeles (Routes 1 and 2), Long Beach (Route 3), Metro Blue Line Artesia Station (Route 6), and the Los Angeles International Airport (Route 8). All of the routes, except Route 6, offer Saturday service, with more limited Sunday service.

Torrance Transit also offers specialized transit services to South Bay residents. The Torrance Community Transit Service provides taxi service (Senior Taxi and Dial-A-Taxi service) to disabled and senior residents. This service enables seniors and disabled residents to be conveniently picked up and taken to locations throughout Torrance. This important service for senior and disabled residents has operated as an on-demand taxi service since October of 2004.

Metro Transit Services

Metro operates several bus lines that service Torrance, including Lines 210, 211, 232, and 444. Bus lines 210, 211, and 232 are all north and south local buses. Line 210 runs between Hollywood and Redondo Beach, line 211 runs between Inglewood and Redondo Beach via Torrance, and 232 runs between Long Beach and the Los Angeles International Airport via Sepulveda Boulevard. Line 444 is a freeway express bus that connects downtown Los Angeles to Rancho Palos Verdes. The bus stop at Hawthorne Boulevard and Artesia Boulevard has the highest number of boardings and alightings of any stop along this arterial.

Municipal Area Express

MAX, the Municipal Area Express, is a commuter bus service that runs during the peak morning and afternoon commuting hours serving South Bay residents. The Torrance Transit System acts as the lead agency for MAX. The service offers three routes through the South Bay, and Line 3 provides commuting service between Torrance and San Pedro. The service has 11 stops in the City, all of which are along Crenshaw Boulevard. Each participating city contributes money, usually Proposition A or Proposition C local return dollars, to fund MAX's operating and capital costs. These contributions are supplemented by fare revenues and grant monies from Metro.

Other Providers

Gardena Transit Route 2 services Torrance and runs along the western edge of the City along Western Avenue. Route 2 has 20 bus stops along approximately four miles of Western Avenue in Torrance. Route 1 can be accessed just outside the City near Redondo Beach Boulevard and Western Avenue. The Palos Verdes Peninsula Transit Authority (PVPTA) operates two fixed bus routes that service the southwestern corner of Torrance along Palos Verdes Boulevard. Route 225 operates on weekdays and Route 226 operates on weekends, and run along Palos Verdes Drive northbound and southbound, respectively. The City of Redondo Beach operates Beach Cities Transit and offers services in the southwestern part of the City. Route 104 connects Del Amo Fashion Center with Torrance South High School (via Calle Mayor) and travels along

the coastline in Redondo Beach. Torrance Transit also offers connection with the Carson Circuit transit system, which provides service throughout Carson.

Bikeways and Trails

The City of Torrance has a bicycle master plan (BMP) that provides a framework for future investments in public and private bicycle facilities and education. Three bikeway classifications are established in the Master Plan:

- Class I Bikeway – Off-road routes along designated multiuse trails or obsolete rail lines. The bikeways are separated from the street
- Class II Bike Lane – On-road routes located along arterial roadways. The lanes are delineated by painted stripes and other features
- Class III Bike Routes – On-road routes that share use with pedestrians or motor vehicle traffic. These routes are signed but not striped.

The BMP illustrates existing and proposed bikeways and designates places for public bicycle parking. These are located at public parks, libraries, and the Civic Center. Through the development review process, the City of Torrance regularly evaluates implementation of new Class I, II, and III bikeways. The City also encourages bicycling as an alternative mode of transportation through Ordinance No. 3371, Transportation Demand Management (TDM).

Metro has published a comprehensive guide for bicycle commuters and recreational bikers detailing 1,252 miles of bike paths, on-street bike lanes, and designated bike routes in Los Angeles County. In cooperation with the City's efforts to promote bicycle commuting, all Torrance Transit buses are equipped with bicycle racks. The City of Torrance continuously seeks funding opportunities for augmenting bikeway facilities and promoting bicycle commuting.

Additionally, the South Bay Bike Trail is a 22-mile paved path that runs from Will Rogers State Beach in the north and ends at Torrance Beach. This trail is shared by bicyclists, joggers, and pedestrians.

Truck Routes

An important aspect of a multimodal regional economy is the movement of goods and merchandise. This is particularly critical in the Los Angeles area, where cargo makes its way to and from local ports via highway and rail links. However, commercial traffic has the potential to impede movements of other traffic and adversely affect adjacent land uses. Torrance has designated its one Principal Arterial—Hawthorne Boulevard—and most Major Arterials in the City as truck routes and consistent with the City's truck route ordinance (Torrance Municipal Code Division 6, Chapter 1, Article 9). These routes have been designated because these roadways are designed or constructed to accommodate large vehicles, and the adjacent land uses require truck accessibility to deliver goods. The truck route system provides access to all areas of the City, as is intended for both local deliveries and through-trucks.

Projections of sustained economic growth for the region include increases in cargo tonnage at ports and rail links, which translates into more heavy trucks and commercial vehicles on area highways and local arterials. In particular, the Alameda Consolidated Transportation Corridor operates as a major regional freight-carrying link. The Alameda Corridor, opened in 2002, is a 20-mile-long rail cargo expressway linking the ports of Long Beach and Los Angeles to the transcontinental rail network near downtown Los Angeles. The City's east–

west arterials and the San Diego Freeway provide access to that transportation corridor to support warehousing and industry in Torrance, which depends on the harbor area for transportation of raw materials or finished products.

Railroads and Railways

Torrance's industrial districts are served by rail lines of Union Pacific (formerly Southern Pacific) and the Burlington Northern and Santa Fe railways, or BNSF. These lines transport goods and materials throughout the region. However, the Union Pacific Company is considering the potential abandonment of its Torrance branch. The BNSF rail lines that run through Torrance will continue to serve businesses and will help supplement the Alameda Corridor route. In addition, the BNSF will have consolidated much of the freight-carrying operations of its Harbor Subdivision into the Alameda Consolidated Transportation Corridor. Therefore, use of existing right-of-way within Torrance is anticipated to diminish. The City will work with regional agencies to promote the rail connections within the Alameda Corridor. The BNSF does not anticipate abandonment of this branch line since it will still provide access to the Alameda Corridor for local freight handling.

Although the industrial base of Torrance will move toward less intensive industrial activities, many businesses will continue to rely on moving freight by rail. Land use policy supports these uses by designating areas for new industrial development in proximity to rail freight facilities, which will minimize impact on adjacent land uses and at-grade railroad crossings. Where possible, the City will encourage industries to share rail facilities to eliminate duplications. To reduce congestion on arterial streets, elimination of at-grade crossings of major streets is a continued objective.

Torrance is not currently served directly by intercity passenger rail. Torrance Transit provides service to Union Station in Downtown Los Angeles for people who use intercity rail transportation.

Existing Conditions Peak Hour LOS – HCM Methodology

Table 5.15-2 summarizes existing conditions AM peak hour and PM peak hour LOS of the study intersections utilizing the HCM analysis methodology.

Table 5.15-2
Existing Conditions AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay - LOS		Delay - LOS	
1. Amie Avenue/Torrance Boulevard (Area 4)	10.0	B	11.9	B
2. Anza Avenue/190th Street (Area 3)	27.7	C	26.0	C
3. Anza Avenue/Del Amo Boulevard (Area 3)	37.5	D	35.4	D
4. Anza Avenue/Spencer Street (Area 3)	7.0	A	7.7	A
5. Anza Avenue/Emerald Street (Area 3)	8.3	A	6.7	A
6. Anza Avenue/Torrance Boulevard (Area 6)	36.3	D	40.4	D
7. Anza Avenue/Carson Street (Area 6)	24.4	C	28.2	C
8. Anza Avenue/Sepulveda Boulevard (Area 6)	48.7	D	54.8	D
9. Anza Avenue/Lomita Boulevard (Area 9)	26.2	C	25.6	C
10. Anza Avenue/Calle Mayor (Area 9)	20.7	C	14.8	B
11. Anza Avenue/Pacific Coast Highway (SR-1) (Area 9)	27.7	C	28.1	C
12. Arlington Avenue/Carson Street (Area 5)	10.9	B	10.0	A
13. Arlington Avenue/Plaza Del Amo-Washington Avenue (Area 8)	39.9	D	34.1	C

Table 5.15-2
Existing Conditions AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay - LOS		Delay - LOS	
14. Arlington Avenue/Sepulveda Boulevard (Area 8)	31.0	C	28.5	C
15. Arlington Avenue/235th Street (Area 8)	16.6	B	15.6	B
16. Cabrillo Avenue/Carson Street (Area 5)	12.6	B	19.0	B
17. Cabrillo Avenue/Sepulveda Boulevard (Area 8)	21.4	C	13.8	C
18. Cabrillo Avenue-Van Ness Avenue/Torrance Boulevard (Area 5)	22.6	C	22.6	C
19. Calle Mayor/Pacific Coast Highway (SR-1) (Area 9)	30.1	C	30.4	C
20. Crenshaw Boulevard/Redondo Beach Boulevard (Area 2)	38.2	D	38.2	D
21. Crenshaw Boulevard/Artesia Boulevard (Area 2)	40.0	D	38.0	D
22. Crenshaw Boulevard/182nd Street (Area 2)	33.6	C	31.7	C
23. Crenshaw Boulevard/190th Street (Area 4)	39.7	D	49.4	D
24. Crenshaw Boulevard/Del Amo Boulevard (Area 4)	9.3	A	11.3	B
25. Crenshaw Boulevard/Maricopa Street (Area 4)	13.9	B	15.7	B
26. Crenshaw Boulevard/Torrance Boulevard (Area 4)	33.2	C	38.0	D
27. Crenshaw Boulevard/Carson Street (Area 7)	33.3	C	39.3	D
28. Crenshaw Boulevard/Plaza Del Amo (Area 7)	10.5	B	10.8	B
29. Crenshaw Boulevard/Sepulveda Boulevard (Area 8)	39.6	D	39.2	D
30. Crenshaw Boulevard/235th Street (Area 8)	19.5	B	20.2	C
31. Crenshaw Boulevard/Lomita Boulevard (Area 8)	40.1	D	***77.1***	***E***
32. Crenshaw Boulevard/Skypark Drive-Amsler Street (Area 8)	22.8	C	24.9	C
33. Crenshaw Boulevard/Pacific Coast Highway (SR-1) (Area 10)	52.0	D	***104.3***	***F***
34. Crenshaw Boulevard/Rolling Hills Road (Area 10)	23.1	C	25.0	C
35. Del Amo Circle East/Carson Street (Area 7)	3.9	A	9.3	A
36. Del Amo Circle East/Sepulveda Boulevard (Area 7)	22.5	C	29.0	C
37. Denny Road-Robinson Avenue/Pacific Coast Highway (SR-1) (Area 10)	7.7	A	9.3	A
38. Hawthorne Boulevard (SR-107)/Redondo Beach Boulevard (Area 1)	30.6	C	38.0	D
39. Hawthorne Boulevard (SR-107)/Artesia Boulevard (Area 1)	31.2	C	33.6	C
40. Hawthorne Boulevard (SR-107)/182nd Street (Area 1)	17.7	B	28.5	C
41. Hawthorne Boulevard (SR-107)/190th Street (Area 3)	34.4	C	36.5	D
42. Hawthorne Boulevard (SR-107)/Del Amo Boulevard (Area 3)	33.2	C	32.6	C
43. Hawthorne Boulevard (SR-107)/Spencer Street (Area 3)	15.4	B	14.3	B
44. Hawthorne Boulevard (SR-107)/Emerald Street (Area 3)	16.7	B	15.4	B
45. Hawthorne Boulevard (SR-107)/Torrance Boulevard (Area 6)	37.4	D	43.7	D
46. Hawthorne Boulevard (SR-107)/Village Lane-Fashion Way (Area 6)	8.0	A	14.3	B
47. Hawthorne Boulevard (SR-107)/Del Amo Circle-Del Amo Circle North (Area 6)	5.6	A	12.2	B
48. Hawthorne Boulevard (SR-107)/Carson Street (Area 6)	30.3	C	44.3	D
49. Hawthorne Boulevard (SR-107)/Sepulveda Boulevard (Area 6)	39.4	D	50.4	D
50. Hawthorne Boulevard (SR-107)/Lomita Boulevard (Area 9)	40.1	D	48.5	D
51. Hawthorne Boulevard (SR-107)/Skypark Drive (Area 9)	19.3	B	26.6	C
52. Hawthorne Boulevard (SR-107)/Pacific Coast Highway (SR-1) (Area 9)	43.3	D	44.5	D
53. Hawthorne Boulevard (SR-107)/Newton Street (Area 10)	7.7	A	4.6	A
54. Hawthorne Boulevard (SR-107)/Rolling Hills Road (Area 10)	15.0	B	15.4	B
55. Henrietta Street/Del Amo Boulevard (Area 3)	11.8	B	7.8	A
56. Henrietta Street/Torrance Boulevard (Area 6)	7.7	A	4.6	A
57. Madison Street/Skypark Drive (Area 10)	14.8	B	15.5	B
58. Madison Street/Pacific Coast Highway (SR-1) (Area 10)	15.8	B	18.2	B
59. Madrona Avenue/Spencer Street (Area 4)	8.7	A	6.6	A
60. Madrona Avenue/Emerald Street (Area 4)	10.7	B	8.9	A
61. Madrona Avenue/Torrance Boulevard (Area 4)	31.5	C	35.9	D

Table 5.15-2
Existing Conditions AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	AM Peak Hour Delay	AM Peak Hour LOS	PM Peak Hour Delay	PM Peak Hour LOS
62. Madrona Avenue/Fashion Way (Area 7)	7.4	A	7.4	A
63. Madrona Avenue/Carson Street (Area 7)	25.7	C	26.9	C
64. Madrona Avenue/Plaza Del Amo (Area 7)	20.1	C	14.4	B
65. Madrona Avenue/Sepulveda Boulevard (Area 7)	26.4	C	30.2	C
66. Maple Avenue/Maricopa Street (Area 4)	18.1	B	18.5	B
67. Maple Avenue/Torrance Boulevard (Area 4)	17.4	B	17.1	B
68. Maple Avenue/Carson Street (Area 7)	20.9	C	20.2	C
69. Maple Avenue/Plaza Del Amo (Area 7)	10.3	B	14.1	B
70. Maple Avenue/Sepulveda Boulevard (Area 7)	26.6	C	27.2	C
71. Ocean Avenue/Sepulveda Boulevard (Area 6)	12.9	B	13.9	B
72. Ocean Avenue/Lomita Boulevard (Area 9)	14.5	B	12.3	B
73. Palos Verdes Boulevard/Torrance Boulevard (Area 6)	22.0	C	22.5	C
74. Palos Verdes Boulevard/Sepulveda Boulevard (Area 6)	22.9	C	21.7	C
75. Palos Verdes Boulevard/Pacific Coast Highway (SR-1) (Area 9)	35.7	D	39.4	D
76. Palos Verdes Boulevard/Calle Mayor (Area 9)	7.4	A	6.4	A
77. Plaza Del Amo/Carson Street (Area 5)	19.2	B	12.7	B
78. Prairie Avenue/Redondo Beach Boulevard (Area 1)	46.4	D	***60.0***	***E***
79. Prairie Avenue/Artesia Boulevard (Area 1)	36.4	D	36.1	D
80. Prairie Avenue/182nd Street (Area 1)	32.7	C	31.2	C
81. Prairie Avenue/190th Street (Area 4)	38.3	D	40.2	D
82. Prairie Avenue/Del Amo Boulevard (Area 4)	30.8	C	35.7	D
83. Van Ness Avenue/Redondo Beach Boulevard (Area 2)	30.2	C	33.5	C
84. Van Ness Avenue/Artesia Boulevard (Area 2)	24.5	C	28.6	C
85. Van Ness Avenue/182nd Street (Area 2)	15.6	B	16.1	B
86. Van Ness Avenue/190th Street (Area 5)	27.8	C	28.2	C
87. Van Ness Avenue/Del Amo Boulevard (Area 5)	24.3	C	14.6	B
88. Victor Street/Del Amo Boulevard (Area 3)	11.5	B	7.7	A
89. Victor Street/Torrance Boulevard (Area 6)	5.2	A	4.3	A
90. Western Avenue (SR-213)/Artesia Boulevard (Area 2)	38.8	D	39.9	D
91. Western Avenue (SR-213)/182nd Street (Area 2)	14.6	B	14.8	B
92. Western Avenue (SR-213)/190th Street (Area 2)	35.0	D	35.1	D
93. Western Avenue (SR-213)/Del Amo Boulevard (Area 5)	13.2	B	14.9	B
94. Western Avenue (SR-213)/Torrance Boulevard (Area 5)	19.1	B	24.7	C
95. Western Avenue (SR-213)/Carson Street (Area 5)	21.3	C	20.2	C
96. Western Avenue (SR-213)/223rd Street (Area 8)	14.9	B	17.4	B
97. Western Avenue (SR-213)/Sepulveda Boulevard (Area 8)	45.5	D	***62.3***	***E***
98. Yukon Avenue/Redondo Beach Boulevard (Area 1)	7.4	A	5.8	A
99. Yukon Avenue/Artesia Boulevard (Area 1)	18.4	B	18.4	B
100. Yukon Avenue/182nd Street (Area 1)	12.6	B	13.1	B

Note: Delay shown in seconds per vehicle; deficient intersection operation shown in ***bold italics.***

As shown in the table above, there are four study intersections that currently operate at a deficient LOS (LOS E or below) according to the City of Torrance performance criteria based on HCM analysis methodology during one or both peak hours:

- Crenshaw Boulevard/Lomita Boulevard (PM peak hour only)

- Crenshaw Boulevard/Pacific Coast Highway (SR-1) (PM peak hour only)
- Prairie Avenue/Redondo Beach Boulevard (PM peak hour only)
- Western Avenue/Sepulveda Boulevard (PM peak hour only).

5.15.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

T-2 Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Result in inadequate parking capacity.

T-7 Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

5.15.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the initial study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-1: PROJECT-RELATED TRIP GENERATION WOULD IMPACT LEVELS OF SERVICE FOR THE EXISTING AREA ROADWAY SYSTEM. [THRESHOLDS T-1 AND T-2]

Impact Analysis: Future year 2030 traffic forecasts were generated using the City of Torrance adopted Citywide Traffic Analysis Model.

Proposed General Plan Land Use

Table 5.15-5 presents a summary of the land use for the City as incorporated into the traffic model for future general plan buildout conditions. The values presented in the table reflect different numbers from those in Tables 3-3 and 3-4, for the following reason.

The City embarked on a comprehensive citywide traffic analysis, performed by RBF Consulting and finalized in 2008. Information from that traffic analysis was used as the basis for the general plan update analysis. Non-residential land use trip rates, which included the hospital uses within the City, were accounted for in the Citywide study, therefore, when those hospital uses were later redesignated as “Hospital” in this General Plan Update, the 2,692,000 square feet of existing hospital use had already been accounted for. Inherently,

there was no "new" square footage, only redesignated non-residential square footage. Therefore, the traffic impact analysis analyses a reduction citywide of 343,044 square feet of nonresidential land uses.

To calculate trip generation of the proposed general plan update project, Institute of Transportation Engineers (ITE) trip generation rates were utilized. Table 5.15-3 summarizes the ITE trip generation rates used to calculate the number of trips generated by the various land uses of the proposed project.

Table 5.15-3
ITE Trip Rates for Proposed General Plan Update Project Land Uses Citywide

Land Use (ITE Code)	Units	AM Peak Hour			PM Peak Hour			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Heavy Industrial (120)	tsf	0.45	0.06	0.51	0.08	0.37	0.45	1.50
Industrial Park (130)	tsf	0.69	0.15	0.84	0.18	0.68	0.86	6.96
Single-Family Detached Housing (210)	du	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Apartment (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.72
Residential Condominium (230)	du	0.07	0.37	0.44	0.35	0.17	0.52	5.86
General Office (710)	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
Business Park (770)	tsf	1.20	0.23	1.43	0.30	0.99	1.29	12.76
Shopping Center (820)	tsf	0.63	0.40	1.03	1.80	1.95	3.75	42.94

Source: 2003 ITE *Trip Generation* 7th edition.
Notes: tsf = thousand square feet; du = dwelling unit

Table 5.15-4 summarizes the total trips forecast to be generated by the proposed project utilizing the trip generation data in Table 5.15-3.

Table 5.15-4
Forecast Trip Generation of Proposed General Plan Update Project

Land Use	AM Peak Hour Trips			Pm Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
–5,441 tsf Heavy Industrial	–2	0	–2	0	–2	–2	–8
–473,153 tsf Industrial Park	–326	–71	–397	–85	–322	–407	–3,293
–63 du Single-Family Detached Housing	–12	–35	–47	–40	–23	–63	–603
664 du Apartment	66	272	338	266	146	412	4,462
1,992 du Residential Condominium	139	737	876	697	339	1,036	11,673
177,198 tsf Shopping Center	112	71	183	319	346	665	7,609
Pass-by Reduction (34 percent PM Peak Hour Only)	N/A	N/A	N/A	–108	–118	–226	–226
431,505 tsf General Office	587	82	669	108	535	643	4,751
–473,153 tsf Business Park	–568	–109	–677	–142	–468	–610	–6,037
Total Forecast Trip Generation of Proposed Project	**–4**	**947**	**943**	**1,015**	**433**	**1,448**	**18,328**

Notes: tsf = thousand square feet; du = dwelling unit; N/A = not applicable.

The proposed general plan update is forecast to generate approximately 18,328 daily trips, which include approximately 943 AM peak hour trips, and approximately 1,448 PM peak hour trips.

General Plan Buildout Daily Traffic Conditions

Forecast existing plus proposed general plan update conditions AM and PM peak hour volumes were derived by adding project trip generation to existing conditions traffic volumes.

Table 5.15-5 below summarizes forecast existing plus proposed general plan update conditions AM peak hour and PM peak hour LOS of the study intersections based on HCM Methodology.

Table 5.15-5
Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	Existing Conditions				Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
1. Amie Avenue/Torrance Boulevard (Area 4)	10.0	B	11.9	B	9.9	A	11.7	B	No
2. Anza Avenue/190th Street (Area 3)	27.7	C	26.0	C	27.7	C	26.1	C	No
3. Anza Avenue/Del Amo Boulevard (Area 3)	37.5	D	35.4	D	37.7	D	35.7	D	No
4. Anza Avenue/Spencer Street (Area 3)	7.0	A	7.7	A	7.0	A	7.6	A	No
5. Anza Avenue/Emerald Street (Area 3)	8.3	A	6.7	A	8.3	A	6.9	A	No
6. Anza Avenue/Torrance Boulevard (Area 6)	36.3	D	40.4	D	36.5	D	41.0	D	No
7. Anza Avenue/Carson Street (Area 6)	24.4	C	28.2	C	24.4	C	28.4	C	No
8. Anza Avenue/Sepulveda Boulevard (Area 6)	48.7	D	54.8	D	49.2	D	***63.7***	***E***	**Yes**
9. Anza Avenue/Lomita Boulevard (Area 9)	26.2	C	25.6	C	26.9	C	26.1	C	No
10. Anza Avenue/Calle Mayor (Area 9)	20.7	C	14.8	B	20.7	C	14.9	B	No
11. Anza Avenue/Pacific Coast Highway (SR-1) (Area 9)	27.7	C	28.1	C	27.7	C	28.1	C	No
12. Arlington Avenue/Carson Street (Area 5)	10.9	B	10.0	A	11.2	B	9.5	A	No
13. Arlington Avenue/Plaza Del Amo-Washington Avenue (Area 8)	39.9	D	34.1	C	38.5	D	35.0	C	No
14. Arlington Avenue/Sepulveda Boulevard (Area 8)	31.0	C	28.5	C	31.7	C	28.2	C	No
15. Arlington Avenue/235th Street (Area 8)	16.6	B	15.6	B	16.8	B	15.7	B	No
16. Cabrillo Avenue/Carson Street (Area 5)	12.6	B	19.0	B	12.6	B	19.0	B	No
17. Cabrillo Avenue/Sepulveda Boulevard (Area 8)	21.4	C	13.8	C	21.3	C	13.7	B	No
18. Cabrillo Avenue-Van Ness Avenue/Torrance Boulevard (Area 5)	22.6	C	22.6	C	22.6	C	22.3	C	No
19. Calle Mayor/Pacific Coast Highway (SR-1) (Area 9)	30.1	C	30.4	C	30.2	C	30.9	C	No
20. Crenshaw Boulevard/Redondo Beach Boulevard (Area 2)	38.2	D	38.2	D	38.2	C	37.6	D	No
21. Crenshaw Boulevard/Artesia Boulevard (Area 2)	40.0	D	38.0	D	41.0	D	38.7	D	No
22. Crenshaw Boulevard/182nd Street (Area 2)	33.6	C	31.7	C	34.3	C	32.3	C	No
23. Crenshaw Boulevard/190th Street (Area 4)	39.7	D	49.4	D	40.2	D	***56.7***	***E***	**Yes**
24. Crenshaw Boulevard/Del Amo Boulevard (Area 4)	9.3	A	11.3	B	9.3	A	11.3	B	No

Table 5.15-5
Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	Existing Conditions				Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
25. Crenshaw Boulevard/Maricopa Street (Area 4)	13.9	B	15.7	B	13.8	B	15.6	B	No
26. Crenshaw Boulevard/Torrance Boulevard (Area 4)	33.2	C	38.0	D	33.9	C	40.3	D	No
27. Crenshaw Boulevard/Carson Street (Area 7)	33.3	C	39.3	D	32.5	C	41.9	D	No
28. Crenshaw Boulevard/Plaza Del Amo (Area 7)	10.5	B	10.8	B	10.0	B	12.2	B	No
29. Crenshaw Boulevard/Sepulveda Boulevard (Area 8)	39.6	D	39.2	D	39.7	D	40.5	D	No
30. Crenshaw Boulevard/235th Street (Area 8)	19.5	B	20.2	C	21.2	C	19.2	B	No
31. Crenshaw Boulevard/Lomita Boulevard (Area 8)	40.1	D	***77.1***	***E***	41.9	D	***74.8***	***E***	No
32. Crenshaw Boulevard/Skypark Drive-Amsler Street (Area 8)	22.8	C	24.9	C	21.7	C	24.5	C	No
33. Crenshaw Boulevard/Pacific Coast Highway (SR-1) (Area 10)	52.0	D	***104.3***	***F***	54.1	D	***113.4***	***F***	**Yes**
34. Crenshaw Boulevard/Rolling Hills Road (Area 10)	23.1	C	25.0	C	22.9	C	24.9	C	No
35. Del Amo Circle East/Carson Street (Area 7)	3.9	A	9.3	A	3.9	A	9.2	A	No
36. Del Amo Circle East/Sepulveda Boulevard (Area 7)	22.5	C	29.0	C	22.8	C	31.7	C	No
37. Denny Road-Robinson Avenue/Pacific Coast Highway (SR-1) (Area 10)	7.7	A	9.3	A	7.8	A	9.3	A	No
38. Hawthorne Boulevard (SR-107)/Redondo Beach Boulevard (Area 1)	30.6	C	38.0	D	3.3	C	37.5	D	No
39. Hawthorne Boulevard (SR-107)/Artesia Boulevard (Area 1)	31.2	C	33.6	C	31.3	C	34.0	C	No
40. Hawthorne Boulevard (SR-107)/182nd Street (Area 1)	17.7	B	28.5	C	17.6	B	28.5	C	No
41. Hawthorne Boulevard (SR-107)/190th Street (Area 3)	34.4	C	36.5	D	34.6	C	37.4	D	No
42. Hawthorne Boulevard (SR-107)/Del Amo Boulevard (Area 3)	33.2	C	32.6	C	33.3	C	33.2	C	No
43. Hawthorne Boulevard (SR-107)/Spencer Street (Area 3)	15.4	B	14.3	B	15.5	B	14.5	B	No
44. Hawthorne Boulevard (SR-107)/Emerald Street (Area 3)	16.7	B	15.4	B	16.7	B	15.3	B	No
45. Hawthorne Boulevard (SR-107)/Torrance Boulevard (Area 6)	37.4	D	43.7	D	37.4	D	44.7	D	No
46. Hawthorne Boulevard (SR-107)/Village Lane-Fashion Way (Area 6)	8.0	A	14.3	B	7.9	A	14.2	B	No

Table 5.15-5
Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	Existing Conditions				Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
47. Hawthorne Boulevard (SR-107)/Del Amo Circle-Del Amo Circle North (Area 6)	5.6	A	12.2	B	5.6	A	12.0	B	No
48. Hawthorne Boulevard (SR-107)/Carson Street (Area 6)	30.3	C	44.3	D	30.2	C	45.9	D	No
49. Hawthorne Boulevard (SR-107)/Sepulveda Boulevard (Area 6)	39.4	D	50.4	D	39.7	D	***56.2***	***E***	**Yes**
50. Hawthorne Boulevard (SR-107)/Lomita Boulevard (Area 9)	40.1	D	48.5	D	42.0	D	***59.1***	***E***	**Yes**
51. Hawthorne Boulevard (SR-107)/Skypark Drive (Area 9)	19.3	B	26.6	C	19.2	B	26.7	C	No
52. Hawthorne Boulevard (SR-107)/Pacific Coast Highway (SR-1) (Area 9)	43.3	D	44.5	D	43.8	D	47.1	D	No
53. Hawthorne Boulevard (SR-107)/Newton Street (Area 10)	7.7	A	4.6	A	7.7	A	4.7	A	No
54. Hawthorne Boulevard (SR-107)/Rolling Hills Road (Area 10)	15.0	B	15.4	B	15.0	B	15.4	B	No
55. Henrietta Street/Del Amo Boulevard (Area 3)	11.8	B	7.8	A	11.9	B	8.6	A	No
56. Henrietta Street/Torrance Boulevard (Area 6)	7.7	A	4.6	A	7.7	A	4.7	A	No
57. Madison Street/Skypark Drive (Area 10)	14.8	B	15.5	B	14.8	B	15.5	B	No
58. Madison Street/Pacific Coast Highway (SR-1) (Area 10)	15.8	B	18.2	B	15.8	B	18.1	B	No
59. Madrona Avenue/Spencer Street (Area 4)	8.7	A	6.6	A	8.7	A	6.6	A	No
60. Madrona Avenue/Emerald Street (Area 4)	10.7	B	8.9	A	10.6	B	8.8	A	No
61. Madrona Avenue/Torrance Boulevard (Area 4)	31.5	C	35.9	D	31.6	C	36.4	D	No
62. Madrona Avenue/Fashion Way (Area 7)	7.4	A	7.4	A	7.4	A	7.3	A	No
63. Madrona Avenue/Carson Street (Area 7)	25.7	C	26.9	C	25.7	C	27.0	C	No
64. Madrona Avenue/Plaza Del Amo (Area 7)	20.1	C	14.4	B	20.0	C	14.6	B	No
65. Madrona Avenue/Sepulveda Boulevard (Area 7)	26.4	C	30.2	C	26.7	C	33.1	C	No
66. Maple Avenue/Maricopa Street (Area 4)	18.1	B	18.5	B	17.9	B	18.4	B	No
67. Maple Avenue/Torrance Boulevard (Area 4)	17.4	B	17.1	B	18.0	B	17.6	B	No
68. Maple Avenue/Carson Street (Area 7)	20.9	C	20.2	C	22.0	C	21.2	C	No
69. Maple Avenue/Plaza Del Amo (Area 7)	10.3	B	14.1	B	10.8	B	13.9	B	No
70. Maple Avenue/Sepulveda Boulevard (Area 7)	26.6	C	27.2	C	26.7	B	28.9	C	No
71. Ocean Avenue/Sepulveda Boulevard (Area 6)	12.9	B	13.9	B	12.7	B	13.5	B	No
72. Ocean Avenue/Lomita Boulevard (Area 9)	14.5	B	12.3	B	14.3	B	12.1	B	No

Table 5.15-5
Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	Existing Conditions				Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
73. Palos Verdes Boulevard/Torrance Boulevard (Area 6)	22.0	C	22.5	C	22.0	C	22.6	C	No
74. Palos Verdes Boulevard/Sepulveda Boulevard (Area 6)	22.9	C	21.7	C	22.6	C	21.7	C	No
75. Palos Verdes Boulevard/Pacific Coast Highway (SR-1) (Area 9)	35.7	D	39.4	D	36.2	D	40.3	D	No
76. Palos Verdes Boulevard/Calle Mayor (Area 9)	7.4	A	6.4	A	7.5	A	6.4	A	No
77. Plaza Del Amo/Carson Street (Area 5)	19.2	B	12.7	B	19.3	B	12.8	B	No
78. Prairie Avenue/Redondo Beach Boulevard (Area 1)	46.4	D	***60.0***	***E***	48.0	D	***58.1***	***E***	No
79. Prairie Avenue/Artesia Boulevard (Area 1)	36.4	D	36.1	D	36.7	D	36.5	D	No
80. Prairie Avenue/182nd Street (Area 1)	32.7	C	31.2	C	32.9	C	31.5	C	No
81. Prairie Avenue/190th Street (Area 4)	38.3	D	40.2	D	38.5	D	41.1	D	No
82. Prairie Avenue/Del Amo Boulevard (Area 4)	30.8	C	35.7	D	31.0	C	36.2	D	No
83. Van Ness Avenue/Redondo Beach Boulevard (Area 2)	30.2	C	33.5	C	30.2	C	33.4	C	No
84. Van Ness Avenue/Artesia Boulevard (Area 2)	24.5	C	28.6	C	24.6	C	28.3	C	No
85. Van Ness Avenue/182nd Street (Area 2)	15.6	B	16.1	B	15.7	B	16.1	B	No
86. Van Ness Avenue/190th Street (Area 5)	27.8	C	28.2	C	27.9	C	27.7	C	No
87. Van Ness Avenue/Del Amo Boulevard (Area 5)	24.3	C	14.6	B	24.3	C	14.9	B	No
88. Victor Street/Del Amo Boulevard (Area 3)	11.5	B	7.7	A	11.5	B	7.7	A	No
89. Victor Street/Torrance Boulevard (Area 6)	5.2	A	4.3	A	5.1	A	4.2	A	No
90. Western Avenue (SR-213)/Artesia Boulevard (Area 2)	38.8	D	39.9	D	38.8	D	39.6	D	No
91. Western Avenue (SR-213)/182nd Street (Area 2)	14.6	B	14.8	B	14.7	B	14.7	B	No
92. Western Avenue (SR-213)/190th Street (Area 2)	35.0	D	35.1	D	34.4	C	35.3	D	No
93. Western Avenue (SR-213)/Del Amo Boulevard (Area 5)	13.2	B	14.9	B	13.6	B	15.5	B	No
94. Western Avenue (SR-213)/Torrance Boulevard (Area 5)	19.1	B	24.7	C	19.5	B	25.2	C	No
95. Western Avenue (SR-213)/Carson Street (Area 5)	21.3	C	20.2	C	21.4	C	20.8	C	No
96. Western Avenue (SR-213)/223rd Street (Area 8)	14.9	B	17.4	B	14.9	B	17.4	B	No
97. Western Avenue (SR-213)/Sepulveda Boulevard (Area 8)	45.5	D	***62.3***	***E***	47.0	D	***62.2***	***E***	No
98. Yukon Avenue/Redondo Beach Boulevard (Area 1)	7.4	A	5.8	A	7.5	A	6.0	A	No

Table 5.15-5
Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS – HCM Methodology

Study Intersection	Existing Conditions				Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
99. Yukon Avenue/Artesia Boulevard (Area 1)	18.4	B	18.4	B	18.5	B	18.4	B	No
100. Yukon Avenue/182nd Street (Area 1).	12.6	B	13.1	B	12.6	B	13.1	B	No

Notes: Delay shown in seconds per vehicle; deficient intersection operation shown in ***bold italics***; significant impact shown in **bold**.

The following eight study intersections are forecast to operate at a deficient LOS (LOS E or below) according to agency performance criteria for forecast existing plus proposed general plan update conditions during one or both peak hours, utilizing HCM methodology:

- Anza Avenue/Sepulveda Boulevard (PM peak hour only)
- Crenshaw Boulevard/190th Street (PM peak hour only)
- Crenshaw Boulevard/Lomita Boulevard (PM peak hour only)
- Crenshaw Boulevard/Pacific Coast Highway (SR-1) (PM peak hour only)
- Hawthorne Boulevard (SR-107)/Sepulveda Boulevard (PM peak hour only)
- Hawthorne Boulevard (SR-107)/Lomita Boulevard (PM peak hour only)
- Prairie Avenue/Redondo Beach Boulevard (PM peak hour only)
- Western Avenue (SR-213)/Sepulveda Boulevard (PM peak hour only)

Based on agency-established thresholds of significance, the proposed general plan update is forecast to result in a significant impact at the following five study intersections utilizing HCM methodology:

- Anza Avenue/Sepulveda Boulevard
- Crenshaw Boulevard/190th Street
- Crenshaw Boulevard/Pacific Coast Highway (SR-1)
- Hawthorne Boulevard (SR-107)/Sepulveda Boulevard
- Hawthorne Boulevard (SR-107)/Lomita Boulevard

General Plan Buildout Daily Traffic Mitigation

Mitigation measures have been developed for each of the intersections that operate at a deficient LOS under future general plan buildout conditions. Peak hour intersection performance is considered the key measure of traffic efficiency. The determination of need for circulation system mitigation is throughput capacity of segment intersections, not segment capacity.

RBF Consulting performed analysis at the following intersections and identified specific mitigation measures required to achieve acceptable peak hour levels of service:

- Anza Avenue/Sepulveda Boulevard
- Crenshaw Boulevard/190th Street

- Crenshaw Boulevard/Pacific Coast Highway (SR-1)
- Hawthorne Boulevard (SR-107)/Sepulveda Boulevard
- Hawthorne Boulevard (SR-107)/Lomita Boulevard

The mitigation measures proposed for these intersections are consistent with the improvements recommended in the City of Torrance Citywide Traffic Analysis, and are shown in Table 5.15-6. Incorporation of the specified intersection improvements is expected to result in the acceptable operation of arterial segments.

Table 5.15-6
Required Intersection Improvements

Intersection	*Required Improvements*
Anza Avenue/Sepulveda Boulevard	Widen eastbound Sepulveda Boulevard approach from one left-turn lane, one through lane and one shared through/right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane.
Crenshaw Boulevard/190th Street	Widen the westbound Crenshaw Boulevard approach from two left-turn lanes, two through lanes, and one right-turn lane to consist of two left-turn lanes, three through lanes, and one right-turn lane.
Crenshaw Boulevard/Pacific Coast Highway (SR-1)	Modify the northbound Crenshaw Boulevard traffic signal phasing to include a northbound right-turn overlap, which will preclude movement from westbound to eastbound Pacific Coast Highway (SR-1).
Hawthorne Boulevard (SR-107)/Sepulveda Boulevard	Modify the northbound Hawthorne Boulevard (SR-107) traffic signal phasing to include a northbound right-turn overlap, which will preclude U-turn movement from westbound to eastbound Sepulveda Boulevard.
Hawthorne Boulevard (SR-107)/Lomita Boulevard	Modify the westbound Lomita Boulevard traffic signal phasing to include a westbound right-turn overlap, which will preclude U-turn movement from southbound to northbound Hawthorne Boulevard (SR-107)

Table 5.15-7 summarizes mitigated forecast existing plus proposed general plan update conditions AM peak hour and PM peak hour LOS of the impacted study intersections.

Table 5.15-7
Mitigated Forecast Existing Plus Proposed General Plan Update Conditions
AM & PM Peak Hour Intersection LOS

Study Intersection	Existing Without Project Conditions				Mitigated Forecast Existing Plus Proposed General Plan Update Conditions				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay – LOS		Delay - LOS		Delay – LOS		Delay - LOS		
8. Anza Avenue/Sepulveda Blvd (Area 6)	48.7	D	54.8	D	45.3	D	53.6	D	No
23. Crenshaw Blvd/190th St (Area 4)	39.7	D	49.4	D	37.3	D	44.7	D	No
33. Crenshaw Blvd/Pacific Coast Hwy (SR-1) (Area 10)	52.0	D	***104.3***	***F***	40.3	D	***92.4***	***F***	No
49. Hawthorne Blvd (SR-107)/Sepulveda Blvd (Area 6)	39.4	D	50.4	D	38.6	D	41.5	D	No
50. Hawthorne Blvd (SR-107)/Lomita Blvd (Area 9)	40.1	D	48.5	D	39.1	D	41.9	D	No

Notes: Delay shown in seconds per vehicle; deficient intersection operation shown in ***bold italics***; significant impact shown in **bold**.

As shown in Table 5.15-7, assuming implementation of the mitigation measures identified in Section 5.15.7, the project traffic impacts at the mitigated study intersections are reduced to a less than significant level during the AM and PM peak hour for forecast plus proposed general plan update conditions.

IMPACT 5.15-2: AIR TRAFFIC PATTERNS WOULD NOT BE AFFECTED BY THE GENERAL PLAN UPDATE. [THRESHOLD T-3]

Impact Analysis: Torrance Municipal Airport (Zamperini Field) is a general purpose aviation facility in the southern portion of the City. The airport has two runways that are capable of handling aircraft up to 20,000 pounds per wheel. The runways' length and weight capacity make them ideal for general aviation. However, it is not recommended for air carrier type aircrafts. The City limits based aircraft to 825 airplanes. Based aircraft does not include transient aircraft, which visit the field for a brief time, and which may be parked or tied down at a fixed based operation site. Some types of aircraft are banned from the airport because they are incapable of meeting the City's stringent noise ordinance.

The airport property encompasses 500 acres. One hundred forty acres are leased at commercial rates for nonaeronautical purposes. A total of 360 acres are dedicated to aeronautical use. As a policy matter, the City has determined that the airport will not expand its operations. The airport will continue its general aviation status and will not expand services into commercial operations.

IMPACT 5.15-3: ADEQUATE PARKING WOULD BE PROVIDED THROUGHOUT THE CITY PROVIDED THAT FUTURE PROJECTS COMPLY WITH THE CITY'S PARKING CODE. [THRESHOLD T-6]

Impact Analysis: The Torrance Municipal Code requires that parking be provided for all uses on a site. These regulations apply to all new developments and may be applied to existing uses that are modified or expanded. The City will continue to enforce these provisions on a project-level basis.

Parking is an issue that will become more critical to the City as traffic volumes increase and on-street parking conflicts with the movement of vehicles. Because of the importance of on-street parking to many existing

businesses, removal of parking must be coordinated with provision of off-street parking in areas where existing off-street parking is inadequate and businesses depend on street parking.

The City will analyze and develop parking standards consistent with community needs. For retail, service, and residential trips, sufficient on-site parking will be required to prevent parking problems from spilling over to adjacent properties and public streets.

IMPACT 5.15-4: PROJECT CIRCULATION IMPROVEMENTS HAVE BEEN DESIGNED TO ADEQUATELY ADDRESS POTENTIALLY HAZARDOUS CONDITIONS (SHARP CURVES, ETC), POTENTIAL CONFLICTING USES, AND EMERGENCY ACCESS. [THRESHOLD T-4]

Impact Analysis: The proposed project would result in changes to the circulation network, but would not increase hazards due to a design feature. Standard City protocol requires all engineered street plans to be reviewed and approved by the City's Public Works Department before any construction can occur, thereby preventing the construction of any unsafe design features. Adequate levels of service would exist at all the City's intersections under the general plan buildout condition. Therefore, there would be no impacts to the circulation system or to emergency access as a result of the proposed project.

IMPACT 5.15-5: THE PROPOSED PROJECT COMPLIES WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [THRESHOLD T-6]

Impact Analysis: As discussed above, residents of Torrance have access to multiple forms of alternative transportation, including commuter and municipal buses, trains, and bike paths. Implementation of the general plan update would further promote the realization of various forms of public and alternative transportation throughout the City.

5.15.4 Relevant General Plan Update Policies

Proposed General Plan policies and actions related to traffic and circulation include:

Circulation Element

- Coordinate regional transportation planning efforts with adjacent communities, regional councils of governments, and regional transportation agencies. (Policy C1.1.1)

- Cooperate with surrounding cities, regional transportation agencies, and other responsible agencies to provide efficient traffic management along major arterial roadways traversing Torrance. (Policy C1.1.2)

- Facilitate commercial vehicle traffic through Torrance while minimizing adverse impacts by regulating truck parking regulations, minimizing intrusions into neighborhoods, and enforcing the use of truck routes. (Policy C1.1.3)

- Regulate the operation of commercial vehicles to minimize conflicts with surrounding land uses and to optimize vehicular and pedestrian mobility. (Policy C1.1.4)

- Support the continued availability of rail service to local industrial businesses in a manner that minimizes conflicts with surrounding land uses and the local street network. (Policy C1.1.5)

- Require that all circulation improvements conform to the Roadway Classification Map (Figure CI-2). (Policy C1.2.1)

- Establish and maintain a complete set of Public Works Street Standards applicable to construction or enhancements of the City's streets. The City may accept different standards for roadways in older developed areas of the City which do not meet present day standards, or under other special circumstances. (Policy C1.2.2)

- Maintain an up-to-date Capital Improvement Program or Action Plan that is consistent with this Element and provides for the improvement and long-term maintenance of local roadways. (Policy C1.2.3)

- Coordinate land use planning with planned future roadway and freeway improvements to ensure that the circulation system can accommodate proposed new development. (Policy C1.2.4)

- Require developers to provide roadway system improvements consistent with this Element. (Policy C1.2.5)

- Continue to measure and monitor circulation system capacity, and identify circulation system deficiencies through the City's Traffic Modeling Program. (Policy C1.2.6)

- Consistent with Land Use Policy LU.11.4, establish corridor plans along major roads and continually assess traffic and infrastructure conditions. (Policy C1.2.7)

- Pursue trip reduction and transportation systems management measures to reduce and limit congestion at intersections and along streets throughout the City. (Policy C1.3.1)

- Monitor the capacity of critical intersections throughout the City. (Policy C1.3.2)

- Interconnect traffic signals and perform similar Intelligent Transportation System (ITS) improvements to maximize the smooth progression of traffic flows and to minimize delay and stop-and-go conditions. (Policy C1.3.3)

- Encourage the use of regional rail, buses, bicycling, carpools, and vanpools for work trips to relieve regional traffic congestion. (Policy C1.3.4)

- Encourage site and building design that reduces automobile trips and parking space demand. (Policy C1.3.5)

- Protect residential neighborhoods from cut-through traffic by enhancing the capacity of Arterials and Collectors, improving signage, guiding traffic away from residential areas, and employing appropriate traffic-calming methods based on identified needs. (Policy C1.4.1)

- Increase average vehicle ridership through the implementation of transportation demand management programs. (Policy C1.4.3)

- Require the equitable sharing between the public and private sector of the full fair-share cost of improvements needed to mitigate traffic impacts. (Policy C1.4.6)

- Consider all alternatives for increasing street capacity before widening is pursued for streets that immediately serve residential neighborhoods. (Policy C1.4.7)

- Require new development to accommodate project-generated parking demand on site. (Policy C1.5.1)

- Review the parking standards contained in the City's Zoning Ordinance, and modify standards as needed to reduce neighborhood parking intrusions and to provide the most appropriate parking standards in commercial zones. (Policy C1.5.2)

- Expand parking opportunities by encouraging the use of public parking lots and exploring the use of multiple-story parking structures. (Policy C1.5.3)

- Maintain and expand a public relations and information awareness program to promote transit use. (Policy C1.7.1)

- Coordinate transit planning with regional and county planning agencies to maximize local and regional services. (Policy C1.7.2)

- Support and encourage the use of public transit for local trips, trips to major employment and commercial centers, and connections to regional transportation transfer points. (Policy C1.7.3)

- Require developers to incorporate facilities for transit and other alternative modes of transportation, such as park-and-ride lots, bus terminals, and bus turnouts in the design of major developments. (Policy C1.7.8)

- Support light rail usage by providing connection and creating efficient transfer opportunities through the Torrance Transit System. (Policy C1.7.9)

- Implement signal prioritization to support public transit and provide more efficient transit services. (Policy C1.7.10)

- Provide and maintain safe, efficient, and convenient pedestrian pathways that offer access to major activity centers, recreation facilities, schools, community facilities, and transit stops. (Policy C1.8.1)

- Promote walking throughout the community by installing sidewalks where they are missing and making improvements to existing sidewalks when needed for safety purposes. Particular attention will be given to sidewalk improvements near schools and activity centers. (Policy C1.8.2)

- Provide and maintain a comprehensive system of bicycle lanes to meet the needs of cyclists traveling to all destinations within the City consistent with the Bicycle Master Plan. (Policy C1.8.3)

- Seek county, State, federal, and private sector assistance to help finance development of bicycle facilities. (Policy C1.8.8)

- Promote the use of compact electric or similar powered vehicles for local trips. (Policy C1.8.9)

5.15.5 Existing Regulations and Standard Conditions

No existing codes or regulations related to traffic and circulation apply to the proposed General Plan Update.

5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.15-2, 5.15-3, 5.15-4, and 5.15-5.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.15-1 Continued buildout of the City in accordance with the proposed General Plan has the potential to significantly impact various intersections throughout the City.

5.15.7 Mitigation Measures

Impact 5.15-1

15-1 The general plan circulation element identifies those roadways that are planned to accommodate current development and future growth established by the Land Use Element. The following improvements identified in Table 5.15-6 will be necessary to maintain acceptable levels of service within the anticipated theoretical buildout of the general plan:

- Anza Avenue/Sepulveda Boulevard – Widen eastbound Sepulveda Boulevard approach from one left-turn lane, one through lane and one shared through/right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane.

- Crenshaw Boulevard/190th Street - Widen the westbound Crenshaw Boulevard approach from two left-turn lanes, two through lanes, and one right-turn lane to consist of two left-turn lanes, three through lanes, and one right-turn lane.

- Crenshaw Boulevard/Pacific Coast Highway (SR-1) - Modify the northbound Crenshaw Boulevard traffic signal phasing to include a northbound right-turn overlap, which will preclude movement from westbound to eastbound Pacific Coast Highway (SR-1).

- Hawthorne Boulevard (SR-107)/Sepulveda Boulevard - Modify the northbound Hawthorne Boulevard (SR-107) traffic signal phasing to include a northbound right-turn overlap, which will preclude U-turn movement from westbound to eastbound Sepulveda Boulevard.

- Hawthorne Boulevard (SR-107)/Lomita Boulevard - Modify the westbound Lomita Boulevard traffic signal phasing to include a westbound right-turn overlap, which will preclude U-turn movement from southbound to northbound Hawthorne Boulevard (SR-107).

5.15.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with transportation and traffic to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to transportation and traffic remain.